

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P589551

Luminaire Tested: **FMR-24-2-LD4-3STD-50-UNV-93-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-3STD-50-UNV-93-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

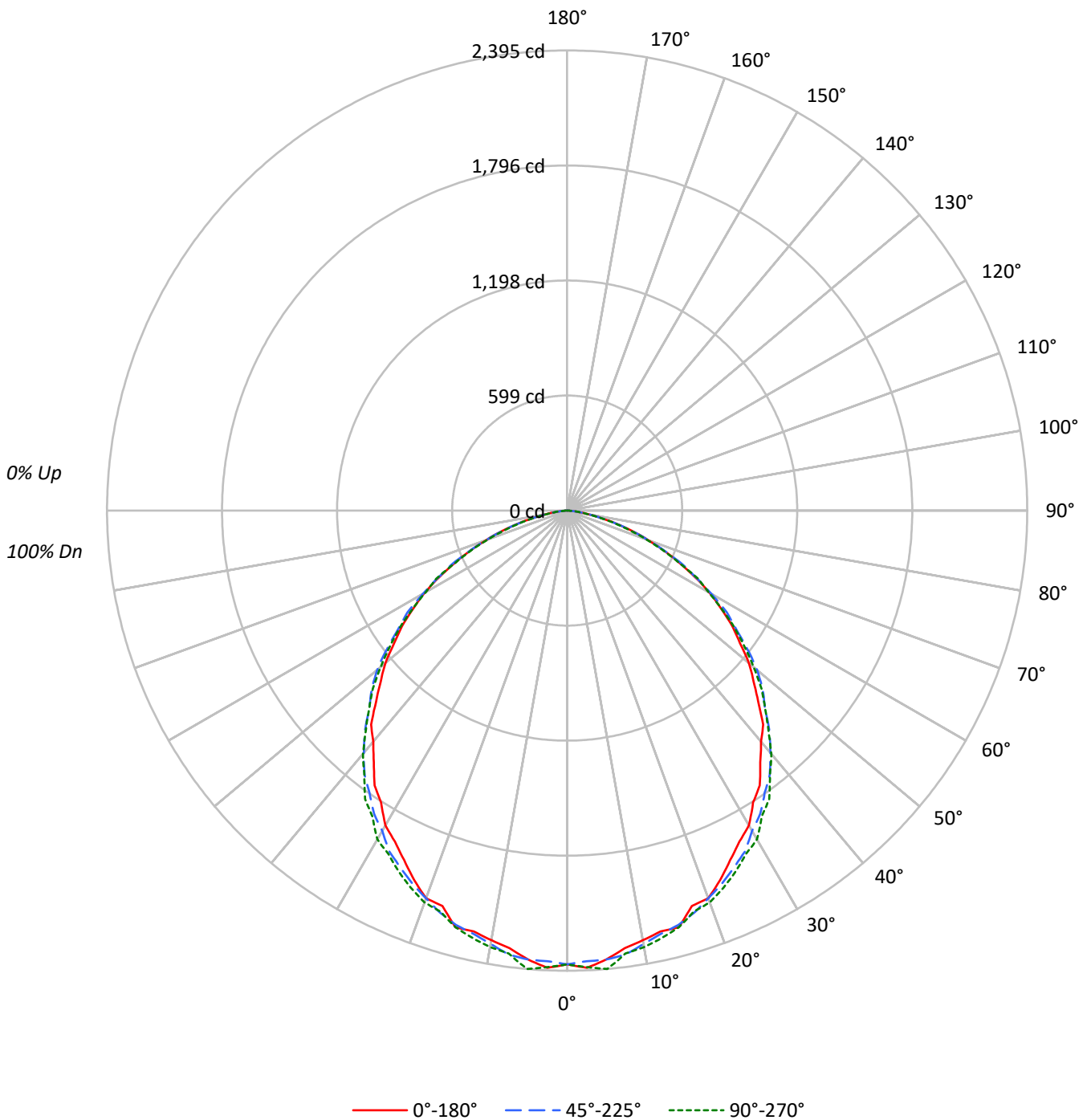
Lumens per Lamp: N/A
Luminaire Lumens: 5952.0 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P589551

CATALOG NUMBER: FMR-24-2-LD4-3STD-50-UNV-93-86-EDD

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6355	6355	6355
5°	6334	6336	6470
10°	6205	6260	6304
15°	6255	6221	6255
20°	6149	6149	6214
25°	5960	6090	6157
30°	5878	5982	6141
35°	5740	5890	6022
40°	5516	5782	5808
45°	5350	5540	5548
50°	5174	5407	5304
55°	4930	5026	4990
60°	4610	4656	4572
65°	4110	4215	4081
70°	3526	3539	3441
75°	2793	2786	2679
80°	1870	1819	1748
85°	1016	1007	942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.1	3.7
10°-20°	629.6	10.6
20°-30°	943.2	15.8
30°-40°	1117.9	18.8
40°-50°	1120.0	18.8
50°-60°	950.7	16.0
60°-70°	641.0	10.8
70°-80°	281.6	4.7
80°-90°	45.8	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1795.0	30.2
0°-40°	2912.9	48.9
0°-60°	4983.6	83.7
0°-90°	5952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5952.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2362	2362	2362	2362	2362	
5°	2345	2339	2346	2339	2395	221
15°	2245	2219	2233	2244	2245	626
25°	2007	2018	2051	2078	2074	928
35°	1747	1752	1793	1834	1833	1085
45°	1406	1432	1456	1493	1458	1087
55°	1051	1044	1071	1064	1064	935
65°	646	637	662	637	641	642
75°	269	263	268	249	258	288
85°	33	32	33	32	30	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2361.6	2361.6	2361.6	2361.6	2361.6
2.5°	2382.0	2364.0	2347.3	2366.8	2378.7
5°	2344.8	2339.3	2345.7	2338.7	2395.1
7.5°	2296.7	2317.7	2329.9	2322.3	2325.6
10°	2271.0	2263.7	2290.9	2309.8	2307.0
12.5°	2243.6	2254.6	2256.1	2276.5	2278.4
15°	2245.1	2219.2	2232.9	2244.5	2245.4
17.5°	2157.9	2186.0	2195.4	2222.0	2189.0
20°	2147.2	2126.8	2147.2	2174.4	2170.1
22.5°	2081.7	2058.8	2102.7	2126.8	2125.3
25°	2007.3	2018.3	2051.2	2078.0	2073.8
27.5°	1942.0	1954.8	2001.8	2038.7	2014.9
30°	1891.7	1885.3	1925.0	1957.9	1976.2
32.5°	1801.8	1824.9	1871.3	1903.9	1886.5
35°	1747.2	1752.4	1792.9	1834.4	1833.2
37.5°	1651.8	1675.8	1732.9	1744.4	1733.8
40°	1570.3	1594.4	1646.0	1658.5	1653.3
42.5°	1510.3	1514.5	1558.7	1573.1	1550.2
45°	1405.7	1431.9	1455.7	1493.2	1457.8
47.5°	1316.6	1328.8	1380.1	1390.1	1371.5
50°	1235.8	1240.1	1291.6	1279.1	1266.9
52.5°	1134.3	1152.3	1181.3	1178.8	1164.5
55°	1050.8	1043.7	1071.2	1063.9	1063.6
57.5°	950.4	962.6	985.2	973.6	955.0
60°	856.5	856.8	865.1	851.9	849.5
62.5°	751.9	755.6	757.4	741.3	767.5
65°	645.5	637.0	662.0	636.7	640.9
67.5°	547.6	551.9	549.5	533.6	539.7
70°	448.2	453.7	449.8	431.8	437.3
72.5°	357.4	350.7	354.9	332.4	342.7
75°	268.6	263.1	268.0	249.1	257.7
77.5°	183.0	187.2	184.2	174.1	179.9
80°	120.7	117.4	117.4	111.6	112.8
82.5°	70.4	67.1	66.2	64.3	67.1
85°	32.9	32.0	32.6	31.7	30.5
87.5°	11.9	12.2	12.2	11.6	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)